

**ABSTRACT OF THE DISCLOSURE**

An internal combustion engine includes a circulation system which circulates a heat medium, a cylinder head part channel which circulates the heat medium into a cylinder head, a cylinder block part channel which circulates the heat medium into a cylinder block, a connecting channel which connects the cylinder head part channel with the cylinder block part channel, a heat supply device that supplies heat accumulated in the regenerator to the internal combustion engine, and restraining device that restrains heat circulation in the connecting channel when heat is supplied by the heat supply device or the internal combustion engine is under cold conditions.